

# Software and Automation Session Summary

Gurtner, McGarry

- Increased system automation is occurring in Network:
  - software (eg *Pearson: Stromlo, Pierron: FTLRS*), and
  - hardware (eg *Degnan: beam expander, Xin: TROS*).
  
- Automation calls for more and more complicated software. Software of the future needs to be modular, loosely coupled, flexible and reuseable (*Pearson*).
  
- An automated system can perform as well as a manually operated system (*Moore: Mt Stromlo*).
  
- New tools & formats are helping in transition to new technologies at stations and in capturing these changes as they happen:
  - Web applications for Engineering Data Files (*Salminsh*)
  - Consolidated Prediction Format and Consolidated Data Format  
(*Ricklefs*)

## Software and Automation Session Summary (cont)

- Other work can share the telescope system with SLR at no performance loss, given the right software (*Gurtner – CCD at Zimmerwald*).
- Reprocessing (looking behind and projecting ahead) can provide 10 – 40% improvement in “real-time” signal processing over plain histogram analysis (*Heiner/Schreiber*).
- The use of FPGAs for digital design in SLR systems is finding more and more applications: (Li: Beijing, Xin: TROS).
- New software and control systems are being developed as new systems are designed (*Wang: San Juan*).